

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1-24. (Cancelled)

25. (Previously Presented) Process for the removal of contaminating sulfur compounds, more in particular thiophenic sulfur compounds, from hydrocarbon feedstocks, the process comprising:

contacting the feedstock in the presence of hydrogen with a sulfided nickel adsorbent, of which adsorbent the rate constant for tetralin hydrogenation activity at 150°C is less than 0.01 l/s.g cat and wherein in said adsorbent part of the nickel is present in the metallic form, at least 10 %, on an atomic basis, of the nickel is in the metallic form, and the nickel surface has an atomic S to Ni ratio of at least 0.5; and

contacting the feedstock with an oxide of a metal that forms stable sulfides under the conditions applied in the process for the removal of contaminating sulfur compounds using the sulfided nickel adsorbent from the hydrocarbon feedstock while contacting the feedstock with the nickel adsorbent.

26. (Previously Presented) Process according to claim 25, wherein the nickel adsorbent has been obtained by treating a metallic nickel adsorbent.

27. (Previously Presented) Process according to claim 26, wherein the said treatment encompasses precipitating S, a polysulfide or an S-compound on the nickel adsorbent, by coprecipitating S, a polysulfide or an S-compound with the nickel adsorbent precursors, or impregnating the nickel adsorbent with S, a polysulfide or an S-compound.

28. (Previously Presented) Process according to claim 27, wherein the said S-compound is selected from the group of di-benzo-thiophene, 2-methyl thiophene, benzothiophene or dimethyl thiophene.
29. (Previously Presented) Process according to claim 25, wherein the sulfided nickel adsorbent further comprises silica, and the sulfided nickel adsorbent comprises the nickel on the silica.
30. (Previously Presented) Process according to claim 29, wherein the sulfided nickel adsorbent is a calcined, reduced coprecipitant comprising sulfided nickel and silica.
31. (Previously Presented) Process according to claim 25, wherein the temperature is between 50 and 300 °C.
32. (Previously Presented) Process according to claim 25, wherein the process is carried out in a fixed bed or slurry phase.
33. (Previously Presented) Process according to claim 25, wherein the oxide of the metal is in the nickel adsorbent.
34. (Previously Presented) Process according to claim 25, wherein the process is conducted at a hydrogen partial pressure between 0.1 and 200 bar.
35. (Previously Presented) Process according to claim 25, wherein the process is conducted at a hydrogen partial pressure between 10 and 75 bar.
36. (Previously Presented) Process according to claim 25, wherein the process is conducted at a hydrogen partial pressure between 30 and 50 bar.

37. (Previously Presented) Process according to claim 25, wherein the process is conducted at a temperature between 50 and 300 degrees C.

38. (Previously Presented) Process according to claim 25, wherein the process is conducted at a temperature between 100 and 200 degrees C.

39. (Previously Presented) Process according to claim 25, wherein the process is carried out with an LHSV between 0.1 and 10 hr^{-1} .

40. (Previously Presented) Process according to claim 39, wherein the process is carried out with a GHSV between 50 and 500 hr^{-1} .

41. (Previously Presented) Process according to claim 25, wherein the nickel adsorbent has been obtained by coprecipitating a precursor for the adsorbent from a solution containing nickel and a sulfur compound.

42. (Previously Presented) Process according to claim 26, wherein the treating a metallic nickel adsorbent further comprises reducing the metallic nickel adsorbent with hydrogen.

43. (Currently Amended) Process according to claim [[41]] 42, wherein the reducing the metallic nickel is conducted with hydrogen at a temperature between 100 and 200 degrees C.

44. (Previously Presented) Process according to claim 26, wherein the treating the metallic nickel adsorbent is conducted at a temperature between 100 and 500 degrees C.

45. (Previously Presented) Process according to claim 26, wherein the metallic nickel adsorbent containing a structural promoter.

46. (Previously Presented) Process of claim 26, wherein the metallic nickel adsorbent is on a support.

47. (Previously Presented) Process according to claim 27, wherein the S-compound is an aromatic sulfur compound.